

**SYSTEM AND METHOD OF ADAPTIVELY MANAGING BANDWIDTH ON  
OPTICAL LINKS SHARED BY MULTIPLE SERVICES USING VIRTUAL  
CONCATENATION AND LINK CAPACITY ADJUSTMENT SCHEMES**

**ABSTRACT**

Described are a system and method of adaptively managing bandwidth between services contending for the bandwidth on an optical link. Bandwidth is allocated to each service contending for bandwidth of the optical link. For each service, a current utilization metric representing a measure of current usage of the allocated bandwidth by that service is computed.

- 5 Additional bandwidth is allocated to one of the services in response to the current utilization metric of that service if bandwidth usage of the optical link is currently at less than full capacity, otherwise the bandwidth allocation between the services is balanced in response to the current utilization metric of at least one of the services if the bandwidth usage of the optical link is currently at full capacity.